

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

Claims 1-25 (cancelled)

Claim 26 (currently amended): A method of producing an Avian Myeloblastosis Virus (AMV) reverse transcriptase having an RNA-dependent DNA polymerase specific activity of at least about 30,000 units per milligram, said method comprising

- (a) obtaining a eukaryotic host cell comprising one or more nucleic acid sequences encoding an AMV reverse transcriptase α subunit and one or more nucleic acid sequences encoding an AMV reverse transcriptase β subunit; and
- (b) culturing said host cell under conditions sufficient to produce said AMV reverse transcriptase; and
- (c) isolating or purifying said reverse transcriptase thereby obtaining an AMV reverse transcriptase having an RNA-dependent DNA polymerase specific activity of at least about 30,000 units per milligram.

Claims 27-32 (cancelled)

Claim 33 (currently amended): The method of claim 26 ^{[[28]]}, wherein subunits of said AMV reverse transcriptase are expressed in said host cell to form said AMV reverse transcriptase.

Claims 34-116 (cancelled)

Claim 117 (currently amended): The method of claim 26 [[28]], wherein said nucleic acid sequences are contained in one or more vectors.

Claims 118-121 (cancelled)

Claim 122 (currently amended): The method of claim 26 [[28]], wherein said AMV reverse transcriptase comprises two β subunits.

Claim 123 (currently amended): The method of claim 26 [[28]], wherein said AMV reverse transcriptase comprises an α and a β subunit.

Claim 124 (currently amended): The method of claim 117 [[28]], wherein said nucleic acid ~~nucleotide~~ sequences are contained on the same vector.

Claim 125 (currently amended): The method of claim 117 [[28]], wherein said nucleic acid ~~nucleotide~~ sequences are contained on different vectors.

Claim 126-136 (cancelled)

Claim 137 (previously presented): The method of claim 26, wherein said AMV reverse transcriptase has a an RNA-dependent DNA polymerase specific activity from about 80,000 units per milligram to about 150,000 units per milligram.

Claim 138 (previously presented): The method of claim 26, wherein said AMV reverse transcriptase has a an RNA-dependent DNA polymerase specific activity of at least about 35,000 units per milligram.

Claim 139 (previously presented): The method of claim 26, wherein said AMV reverse transcriptase has a an RNA-dependent DNA polymerase specific activity of at least about 40,000 units per milligram.

Claim 140 (previously presented): The method of claim 26, wherein said AMV reverse transcriptase has a an RNA-dependent DNA polymerase specific activity of at least about 45,000 units per milligram.

Claim 141 (previously presented): The method of claim 26, wherein said AMV reverse transcriptase has a an RNA-dependent DNA polymerase specific activity of at least about 50,000 units per milligram.

Claim 142 (previously presented): The method of claim 26, wherein said AMV reverse transcriptase has a an RNA-dependent DNA polymerase specific activity of at least about 55,000 units per milligram.

Claim 143 (previously presented): The method of claim 26, wherein said AMV reverse transcriptase has a an RNA-dependent DNA polymerase specific activity of at least about 60,000 units per milligram.

Claim 144 (previously presented): The method of claim 26, wherein said AMV reverse transcriptase has a an RNA-dependent DNA polymerase specific activity of at least about 65,000 units per milligram.

Claim 145 (previously presented): The method of claim 26, wherein said AMV reverse transcriptase has a an RNA-dependent DNA polymerase specific activity of at least about 70,000 units per milligram.

Claim 146 (previously presented): The method of claim 26, wherein said AMV reverse transcriptase has a an RNA-dependent DNA polymerase specific activity of at least about 75,000 units per milligram.

Claim 147 (previously presented): The method of claim 26, wherein said AMV reverse transcriptase has a an RNA-dependent DNA polymerase specific activity of at least about 80,000 units per milligram.

Claim 148 (cancelled): The method of claim 26, wherein said AMV reverse transcriptase comprises a subunit selected from the group consisting of an α subunit, a β subunit, and a $\beta p4$ subunit of AMV reverse transcriptase.

Claim 149 (previously presented): The method of claim 26, wherein said host cell is a cultured insect cell.

Claim 150 (previously presented): The method of claim 26, wherein said host cell is an insect larva cell.

Claim 151 (previously presented): The method of claim 26, wherein said host cell is a yeast cell.

Claim 152 (new): The method of claim 26, wherein said AMV reverse transcriptase has a an RNA-dependent DNA polymerase specific activity of about 35,000 units per milligram.

Claim 153 (new): The method of claim 26, wherein said AMV reverse transcriptase has a an RNA-dependent DNA polymerase specific activity of about 40,000 units per milligram.

Claim 154 (new): The method of claim 26, wherein said AMV reverse transcriptase has a an RNA-dependent DNA polymerase specific activity of about 45,000 units per milligram.

Claim 155 (new): The method of claim 26, wherein said AMV reverse transcriptase has a an RNA-dependent DNA polymerase specific activity of about 50,000 units per milligram.

Claim 156 (new): The method of claim 26, wherein said AMV reverse transcriptase has a an RNA-dependent DNA polymerase specific activity of about 55,000 units per milligram.

Claim 157 (new): The method of claim 26, wherein said AMV reverse transcriptase has a an RNA-dependent DNA polymerase specific activity of about 60,000 units per milligram.

Claim 158 (new): The method of claim 26, wherein said AMV reverse transcriptase has a an RNA-dependent DNA polymerase specific activity of about 65,000 units per milligram.

Claim 159 (new): The method of claim 26, wherein said AMV reverse transcriptase has a an RNA-dependent DNA polymerase specific activity of about 70,000 units per milligram.

Claim 160 (new): The method of claim 26, wherein said AMV reverse transcriptase has a an RNA-dependent DNA polymerase specific activity of about 75,000 units per milligram.

Claim 161 (new): The method of claim 26, wherein said AMV reverse transcriptase has a an RNA-dependent DNA polymerase specific activity of about 80,000 units per milligram.